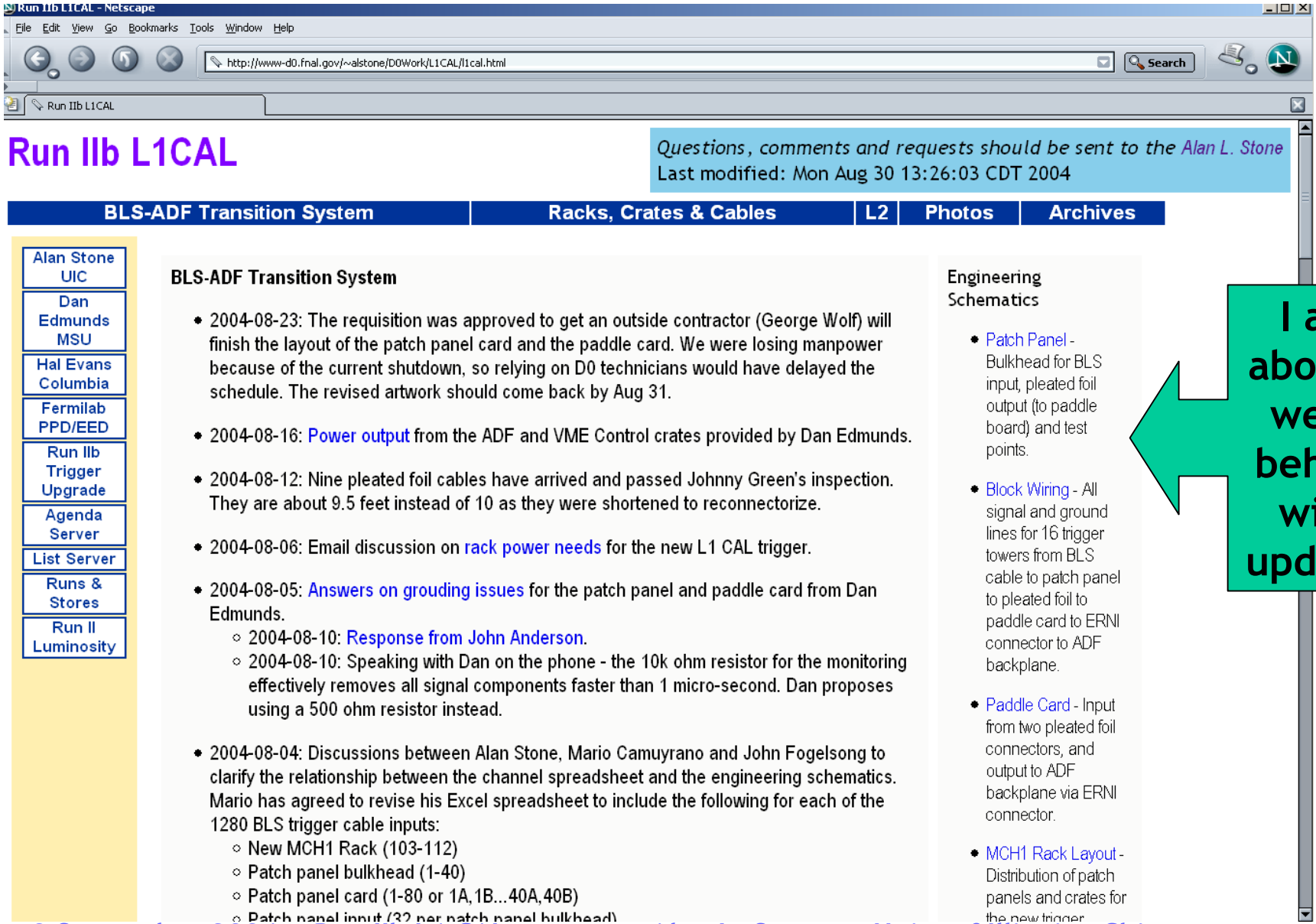
My L1 CAL Web Page

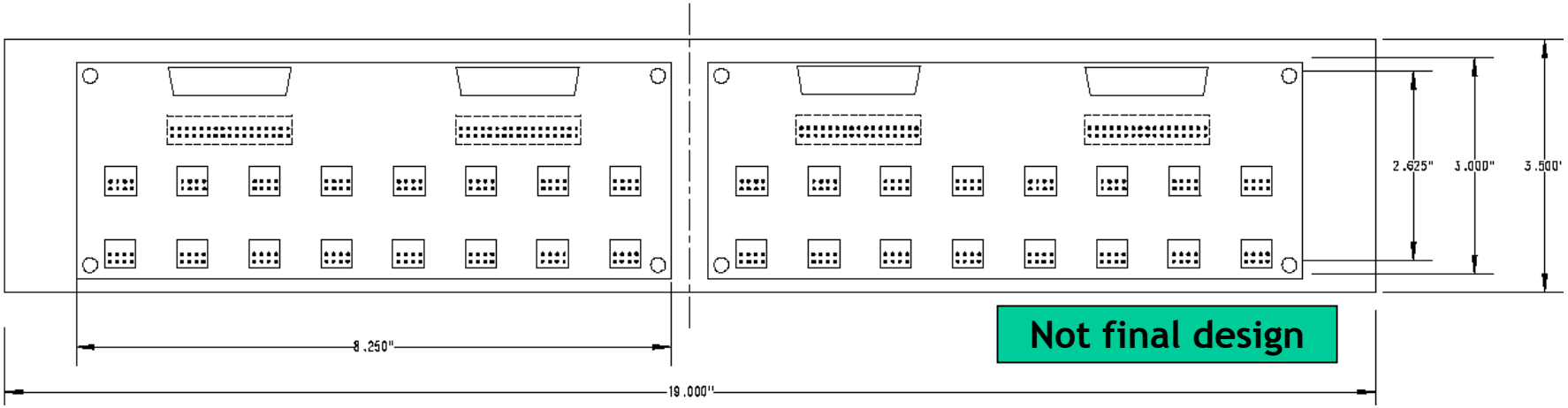


I am about 1 week behind with updates

BLS-to-ADF Transition System

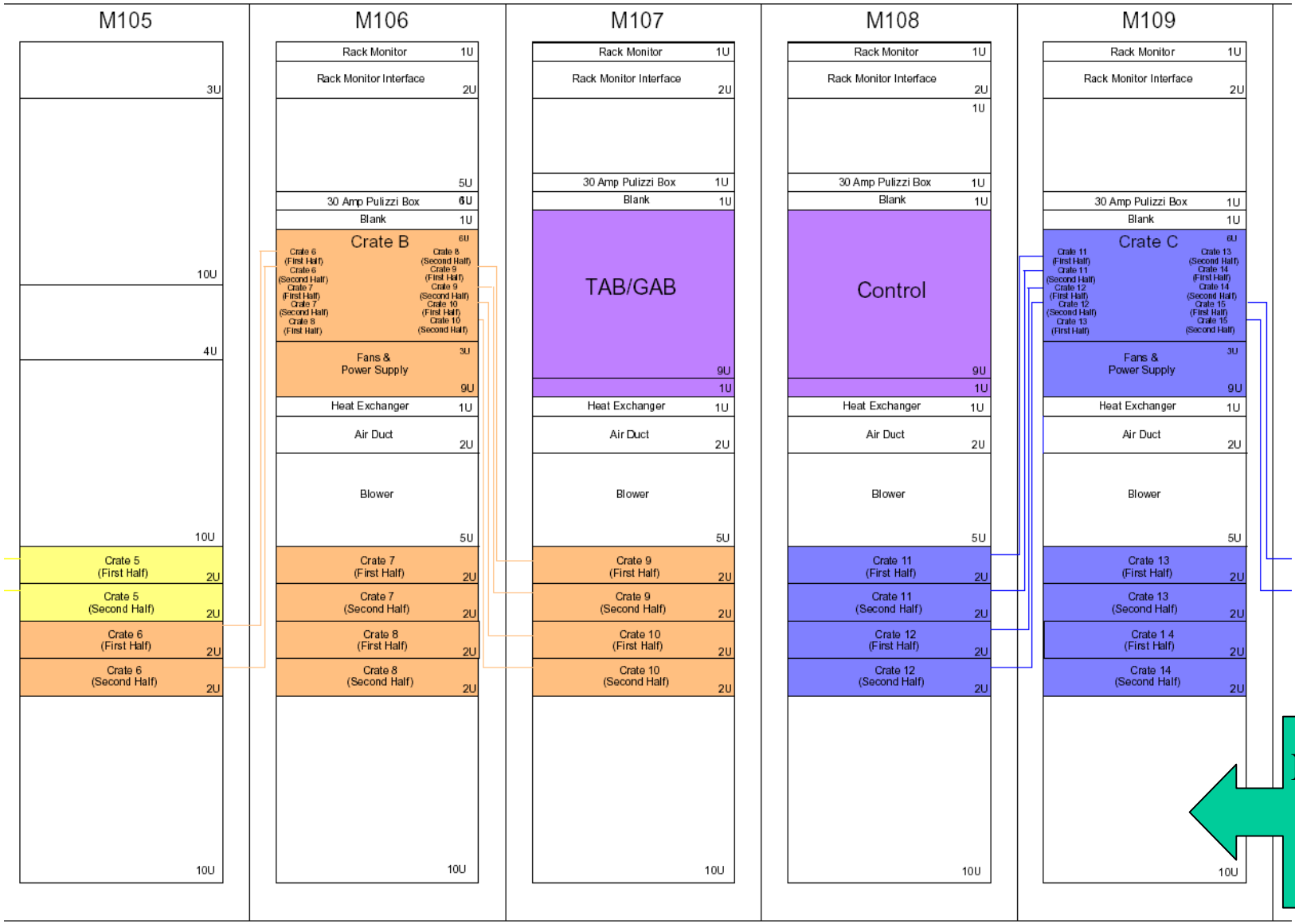
- Layouts of patch panel and paddle cards were completed a week ago
  - Dan Edmunds, Johnny Green & John Fogelsong all signed off after a few minor changes
  - Pass signal from existing 1280 BLS trigger cables to new ADF crate backplanes
    - Fully documented in pending D0 Note
  - Need careful mapping of each conductor - signal and ground
    - Mario has a massive spreadsheet
  - New rack layout for MCH1
    - Cooling is still a concern. Existing cables major constraint.
  - Require rigorous testing of all new passive electronics and cables
    - Prototype cables are here. Patch panel and paddle cards are in the last stage of layout. Should have stuffed boards in <10 days.
  - Mock-up of patch panels and cables to understand cable flow and strain relief, cable lengths, etc.
    - Already have new racks, patch panel templates, scrap cables
  - Relabel existing BLS cables - new destination
    - Provide outside company with format and text

Patch Panel

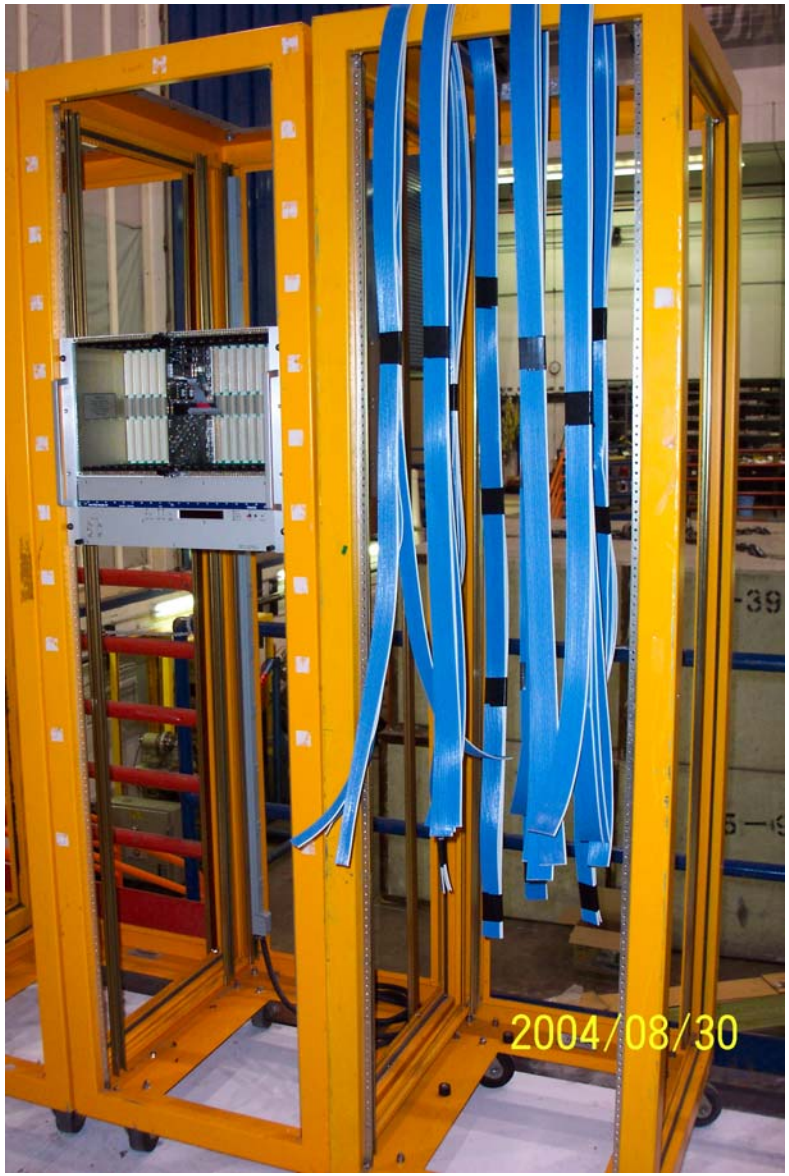


- **Need 40 Patch Panels (PP) - four in each rack.**
  - We are considering mounting the PP to a drawer.
  - Two patch panel cards (PPC) - stuffed printed circuit boards - for each PP. The cables plug into the connectors from inside.
  - 16 BLS input cables - for each trigger tower (TT) - and 2 pleated foil output cables for each ADF.
  - 4 monitor connectors accessible from outside. Expert can plug in a scope (even during physics data taking!) to monitor or debug a problem or feature.

MCH1 Rack Layout

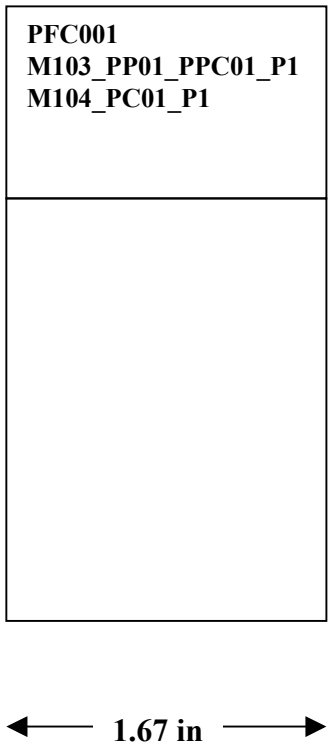


Test Stand



- Test stand area has wooden platform floor to prevent any ground faults
- Racks lowered from DAB3 last week
  - Have 5. Will need 10.
- 2 patch panels and template PCBs for 4 patch panel cards have been prepared
- Blue cable is exact type of existing BLS trigger cables
  - Cut 16 ten-foot lengths
- Preparing mock-up of cables and patch panels using rack layout specs
  - Need help!
- Need to prepare a setup to test passive electronics and cables
  - Have scope and pulse generator
  - Need help!

Labels



- Label name
- Origin
- Destination
- Pleated Foil (left): 160 x 2
  - One label for each end of 10 foot cables
    - PFC001 = Pleated Foil Cable 1 (of 160)
    - M103 = MCH Rack 103 (103-112)
    - PP01 = Patch Panel 1 (of 40)
    - PPC01 = Patch Panel Card 1 (of 2)
    - P1 = Connector 1 (of 2)
    - PC01 = Paddle Card 1 (of 80)
- BLS Trigger: 1280 x1
  - Cannot access platform end of detector
  - Will not remove or cover old labels

Remaining Concerns

- Do not have the TAB/GAB power supply dimensions and power input/output needs
- Sufficient cooling for ADF crate?
  - Dan Edmunds has supplied power estimates
- Rearrange test stand
  - Large wooden crates will be removed shortly
  - Need to place racks close to the power outlets
  - Move desks and tables elsewhere
- Mock-up – should only be 1-2 days of dedicated effort
  - What is the best way to route cables?
  - Do not know how much slack is in the BLS trigger cables
- Transition system testing
  - Full time effort. Who will do this? Needs to be done immediately after patch panel and paddle cards prototypes arrive.
    - Drives schedule for full schedule production
  - Continuity tests for starters, then pulse generator and/or Calorimeter preamp pulser to check signal path up to ADF crate
  - Involve Dan Edmunds for advanced study of signal integrity, reflection, noise, etc.